

**Arizona Corporation Commission
Meeting Minutes**

DATE: July 8, 2005

TIME: 9:30 a.m.

PLACE: Arizona Corporation Commission, 1200 W. Washington Street,
Room 100, Phoenix, Arizona 85007

ATTENDANCE: Commissioner Jeff Hatch-Miller. See attendance list on
Attachment 1.

TOPIC: DISTRIBUTED GENERATION WORKSHOPS
DOCKET NO. E-00000A-99-0431

Barbara Keene of Commission Staff welcomed the participants of the workshop and each participant made a self-introduction. Ms. Keene provided a brief background of the distributed generation (“DG”) workshop process that was initiated in 1999. The 1999 workshop process resulted in Arizona State Draft Interconnection Standards for Distributed Generation (“AZ Draft Standards”). This and other reports related to this docket can be found on the Commission’s website at www.cc.state.az.us/working/index.htm under the DGI Working Group Report heading. In order to provide a sample of DG interconnection rules and procedures the following documents were provided as handouts at the workshop.

- Arizona State Draft Interconnection Standards for Distributed Generation dated November 11, 1999
- Texas DG Rules Chapter 25 Subchapter I Division 2
- FERC Small Generator Interconnection Procedures
- New Jersey Net Metering and Interconnection Standards for Class 1 Renewable Energy Systems
- New York Standardized Interconnection requirements and Application Process for New Distributed Generators 2 MW or Less dated November 2004

Links to these handouts will be available on the Commission’s website.

Ms. Keene also discussed the provisions in Commission Decision No. 67744 (APS Rate Case Settlement). The order provided that the parties would evaluate in the workshop process the three recommendations made by the Arizona Cogeneration Association/Distributed Energy Association of Arizona (“DEAA”) in its post hearing brief. These recommendations include: utilizing Texas interconnection standards or as an alternative California rule 21 as a basis for Arizona standards, using Salt River Project’s rate E-32 as a basis for a new experimental partial requirements tariff, and developing a distributed generation program. Ms. Keene also explained that the group would address the issue of net metering.

The group discussed the issue of the workshop process. Ms. Keene explained that in an effort to focus the issues the group would first address interconnection standards and Staff's goal would be to produce a Staff report on interconnection by year end.

Participants were encouraged to develop a list of goals that DG interconnection standards should address. The group developed the following list of DG interconnection standard goals and concerns.

- Pave the regulatory road for the proliferation of safe DG
- Safety
- Provide for a reliable utility/electric system
- Provide for the development of DG in lieu of the development of transmission infrastructure
- Standards should limit costs
- Encourage homegrown energy
- Establish standardized business practices and uniform statewide standards
- Increase the proliferation of DG to enhance the reliability of the electric system
- DG will diversify the total energy resource mix
- The technical aspects should be compatible with FERC requirements
- Timelines and procedures should be applied in a consistent manner
- The magnitude of the impact of DG should be studied as part of the process
- The process should be well-defined and could be implemented by non-ACC jurisdictional utilities
- The subsidization of DG should be prohibited
- The value and benefits of DG should be recognized
- The interconnection process should be a simple and expeditious process
- Increased system efficiency and grid stability
- Flexibility in standards
- Decreased demand on natural gas
- Leverage of resources
- Sustainable installations
- Build on standards we already have in place

The group discussed at length which interconnection standard should be used as a strawman to begin the process. Both Arizona Public Service and Tucson Electric Power commented that they are currently using the AZ Draft Standards that were established in the 1999 DG workshop process. More specifically, the AZ Draft Standards would be the best model to start with as a basis for interconnection procedures because many of the issues have already been resolved in the 1999 DG process. Other participants, including DEAA and the Greater Tucson Coalition for Solar Energy, indicated that the Texas model was the best model to start with. DEAA believes the AZ Draft Standards are flawed. More specifically, the Texas standard addresses certain issues including time limits and pre-certified equipment that the AZ Draft Standards do not. It was also discussed that the Texas Distributed Interconnection Manual and IEEE 1547 should be

considered in addition to the standards and procedures that were provided as handouts at the workshop. The Texas manual can be found at www.puc.state.tx.us/electric/business/dg/dgmanual.pdf. Information related to the IEEE 1547 standard can be found at http://grouper.ieee.org/groups/scc21/dr_shared/. This standard is available on the IEEE website for purchase.

As a homework assignment, workshop participants were asked to provide comment that incorporates language or concepts from *any* standard as well as incorporating recommendations for improvements to current procedures. Comments can be provided on DG interconnection rules or procedures. In order to provide a framework for comment, it was determined that Staff would provide the workshop participants a list of DG interconnection issues. Participants should file their comments by July 29, 2005. Staff's DG issues list is provided as Attachment 2 to these meeting minutes. Staff will compile the parties' comments and provide a draft document to the group prior to the next meeting.

Participants should file their written comments by July 29, 2005 through the Commission Docket Control center at 1200 W. Washington Street, Phoenix, AZ 85007. The comments should reference docket no. E-00000A-99-0431. Electronic copies should also be provided in Microsoft Word format to eandreasen@azcc.gov and lmiller@azcc.gov.

It was also determined that the utilities would provide their current DG interconnection related documents to Staff no later than July 15, 2005. Electronic copies should be provided in Microsoft Word format to eandreasen@azcc.gov and lmiller@azcc.gov.

All utility interconnection related documents and comments will be posted to the Commission's website at: www.cc.state.az.us/utility/electric/dg.htm.

The next workshop will be held on Friday August 26, 2005. A workshop agenda will be forwarded to the group prior to the workshop date.

Attachment 1

Attendees at the Distributed Generation Workshop July 8, 2005	
Name	Representing
Terry Anderson	ETA Engineering
Erinn Andreasen	Commission Staff
Prem Bahl	Commission Staff
Torey Bell	Sulphur Springs Valley Electric Cooperative
Bob Baltes	Distributed Energy Association of Arizona
David Berry	Western Resource Advocates
Steve Bischoff	Arizona Public Service
Jana Brandt	Salt River Project
Christine Brinker	Intermountain CHP Center
Richard Brill	Deluge, Inc.
Adam Browning	Vote Solar
Jennifer Cannon	Pinnacle West Energy Corporation
Brian Cole	Arizona Public Service
David Couture	Tucson Electric Power
Travis Cunningham	Salt River Project
Michael Curtis	Mohave & Navopache Electric Cooperatives
Paul Dunakin	Southwest Solar Institute
Charles N. Emerson	Trico Electric Cooperative
Douglas Fant	Distributed Energy Association of Arizona
Pauline Foley	Pinnacle West
Art Fregoso	Tucson Electric Power
Bryan Gernet	Arizona Public Service
Lane S. Garrett, P.E.	ETA Engineering
Brian Hageman	Deluge, Inc
Bill Henry	Tucson Electric Power
Barbara Keene	Commission Staff
Amy LeGere	Southwest Windpower
Landis Maez	Arizona Public Service Energy Services
Bill Meek	Arizona Utility Investors Association
Steve Metzger	Tucson Electric Power
Joe McGuirk	Sun Miner
Matt Monroe	DCSI
Tom Mumaw	Arizona Public Service
Bill Murphy	Distributed Energy Association of Arizona
Ernest Nedd	Residential Utility Consumer Office
Dan Neidlinger	Fort Huachuca
Brian O'Donnell	Southwest Gas

Attendees at the Distributed Generation Workshop July 8, 2005	
Name	Representing
Ron Onate	Arizona Public Service
Ernie Palomino	Salt River Project
Greg Patterson	Arizona Competitive Power Alliance
Caren A. Peckerman	Deluge, Inc.
Bruce Plenk	Southern Arizona Legal Aid
Valarie Rauluk	Greater Tucson Coalition for Solar Energy
Jim Rein	Arizona Electric Power Cooperative
Russ Romney	Curtis, Goodwin, Sullivan, Udall & Schwab
David Rumolo	Arizona Public Service
Jeff Schlegel	Southwest Energy Efficiency Project
Sean Seitz	Arizona Solar Energy Industries Association
Kathy Senseman	Southwest Gas
Joe Schilling	DCSI
Chuck Skidmore	City of Scottsdale
Jerry Smith	Arizona Public Service
Aron Stallings	Mohave Electric Cooperative
Scott Swanson	Arizona Public Service
Ritchey D. Waldrep	International Brotherhood of Electrical Workers
John Wallace	Grand Canyon State Electric Cooperative Association
Chris Weathers	Arizona Public Service
Ray Williamson	Commission Staff
Tom Yost	Arizona Public Service

Attachment 2

Distributed Generation Topics for Comment

Please note that these topics were taken from a variety of interconnection documents including the Arizona draft standard and the Texas rule. These topics are to serve as a framework and starting point for the development of a strawman. These topics may need to be consolidated or changed as a result of input from the group.

I. Scope and Procedure

- A. Applicability
 - a. Size and type of facilities which the policy applies to
 - b. Categories of generator size or classes
 - c. Distributed generation types
 - d. Other issues
- B. Rights and Responsibilities
 - a. Utility and applicant
 - b. Easements/rights of way
 - c. Insurance
 - d. Other issues
- C. Definitions
- D. Interconnection Process/Procedures
 - a. Procedures addressing both network and non-networked interconnections
 - b. Pre-interconnection study or screening criteria
 - c. Expedited processes for smaller generators
 - d. Communication process concerning proposed DG projects
 - e. Equipment pre-certification
 - f. Utility reporting requirements to the Commission
 - g. Utility inspections
 - h. Interconnection dispute resolution process
 - i. Disconnect from or reconnect with the grid procedure
 - j. Other issues
- E. Application Process and Document Requirements
 - a. Time periods for processing applications
 - b. Steps in the process
 - c. Documentation requirements
 - d. Designation of utility contact persons
 - e. Other issues

II. Interconnection Technical and Operational Requirements

- A. Categories of equipment
- B. Design considerations/Protective equipment requirements

- C. Operational requirements
 - a. Voltage levels
 - b. Network & non-network items
- D. Inspection and start-up testing
- E. Testing and commissioning
- F. Meter installations
- G. Maintenance requirements
- H. Other issues

III. Other Considerations

- A. Net metering
- B. Other issues